## AMENDMENTS TO THE CLAIMS

What is claimed is:

1       1. (Original) A cellular data packet, comprising:

2       a preamble for collision determination and synchronization;

3       a start-of-frame delimiter (SFD);

4       a destination address (DA);

5       a source address (SA);

6       a routing information block (RIB); and

7       an informational field.


1       2. (Original) The cellular data packet of claim 1, wherein said informational field

2 comprises:

3       a type field for indicating whether said packet is a control packet or a service

4 packet;

5       a status field;

6       a data field; and

7       a cyclic redundancy check (CRC) field, including error detection and

8 correction information.


1       3. (Original) The cellular data packet of claim 2, wherein said type field comprises:

2       a two-byte protocol identifier;

3       a two-byte sub-protocol identifier; and

4       a two-byte service identifier.


1       4. (Original) The cellular data packet of claim 2, wherein said status field is

2 configured to indicate whether said packet is an ACK or a NACK packet, the number of data

3 packets pending, spread spectrum synchronization information, or whether said packet is

4 native or routed.

1    5. (Original) The cellular data packet of claim 1, wherein said destination address
2    comprises:
3            a region indicator for indicating a region location of a recipient user station;
4            a cell identifier for indicating a cell within said region; and
5            a cellular IP address of said recipient user station within said cell.


1    6. (Original) The cellular data packet of claim 1, wherein said source address
2    comprises:
3            a region indicator for indicating a region location of a transmitting user
4    station;
5            a cell identifier for indicating a cell within said region; and
6            a cellular IP address of said transmitting user station within said cell.


1    7. (Original) The cellular data packet of claim 1, wherein said routing information
2    block indicates a routing path of said packet from said transmitting/receiving user station to
3    said base station.


1    8. (Original) The cellular data packet of claim 7, wherein said routing information
2    block is configured to indicate up to ten routing links between said transmitting station and
3    said base station.


1    9. (Original) The cellular data packet of claim 1, wherein said packet is a variable-
2    length data packet.


1    10. (Original) The cellular data packet of claim 9, wherein said packet has a
2    maximum byte-length of 512 bytes.

1       11. (Original) A method for routing a data packet within an intelligent cellular IP

2    network, wherein a transmitting/receiving station is outside of an originating transmitting or

3    destination receiving cell or blocked from said originating transmitting or destination

4    receiving cell, comprising the steps of:

5         transmitting a data packet, including routing information indicating at least

6    one intermediate recipient other than a base station;

7         receiving of said packet by said at least one intermediate recipient ; and

8         transmitting said packet in accordance with said routing information from

9    said at least one intermediate recipient to said receiving base station;

10        wherein said at least one intermediate recipient is a different

11    transmitting/receiving station within said cell.


1       12. (Original) The method of claim 11, wherein said routing information is

2    determined from a routing table specific to each of said transmitting/receiving stations.


1       13. (Original) The method of claim 12, wherein said routing table can be static or

2    dynamic.


1       14-15. (withdrawn)


1       16. (Original) An cellular modem, comprising:

2         a radio frequency unit for transmitting/receiving data packets; and

3         a baseband-to-intermediate frequency conversion unit, having a cellular

4    network routing engine based on cellular IP, configured to covert the baseband information

5    from a computer into intermediate frequency information for processing by said radio

6    frequency unit; wherein said modem is configured to serve as a router within said cellular

7    network.


1       17. (Original) The cellular modem of claim 16, wherein said radio frequency unit is

2    configured to operate in the MMDS, LMDS, [ISM, ITFS] and MDS spectrums.